

CLAIMS

The invention claimed is:

1. An apparatus for sharpening a tool comprising a blade having a bevel face defining a cutting edge, said apparatus comprising:
 - (a) a movable substantially planar abrasive surface;
 - (b) a guide post arranged substantially normal to said planar abrasive surface;
 - (c) a tool holder including a portion defining a bore slidably engaging said guide post so that said tool holder is movable in a direction substantially normal to said planar abrasive surface, said tool holder further including a tool rest surface to support a blade of a tool, said tool rest surface being securable at an angle to said bore to permit said bevel face of said blade to be secured substantially parallel to said planar abrasive surface; and
 - (d) a clamp to restrain said blade of said tool to said tool rest surface.
2. A tool sharpening apparatus for use with a drill press having a power rotatable chuck and a workpiece positioning table, said tool sharpening apparatus comprising:
 - (a) a disk including a shaft affixed to and rotatable with said disk, said shaft retainable in said chuck, said disk further including a substantially planar abrasive surface arranged substantially normal to said shaft;
 - (b) a base;
 - (c) a base retainer to restrain said base to said table of said drill press;
 - (d) a guide post affixed to said base and extending substantially normal to said planar abrasive surface;
 - (e) a guide block including portions defining a bore slidably engaging said guide post;
 - (f) a tool rest including a tool rest surface for supporting a blade of a tool for sharpening, said tool rest being attached to and selectively rotatable with respect to said guide block to permit said tool rest surface to be fixed at a selected angle to said bore; and
 - (g) a clamp to restrain a blade of a tool to said tool rest surface.
3. A method for sharpening a tool having a cutting edge defined by a bevel face, said method comprising the steps of:

- (a) securing an abrasive disk in a chuck of a drill press, said abrasive disk including a substantially planar abrasive surface arranged substantially normal to an axis of rotation of said chuck;
- (b) securing a guide post to a table of said drill press, said guide post extending substantially parallel to said axis of rotation of said chuck;
- (c) clamping a tool to be sharpened to a tool rest surface of a tool holder;
- (d) slidably engaging said guide post with a bore in said tool holder;
- (e) fixing said tool rest surface at an angle to a longitudinal axis of said guide post such that said bevel face is substantially parallel to said planar abrasive surface;
- (f) rotating said chuck; and
- (g) exerting a force in a direction of said planar abrasive surface to move and press said bevel face of said tool into contact with said moving abrasive surface.